

**THE OFFICE OF REGULATORY STAFF**

**DIRECT TESTIMONY & EXHIBITS**

**OF**

**ZACHARY J. PAYNE**

**JUNE 20, 2018**



**DOCKET NO. 2018-4-G**

**ANNUAL REVIEW OF PURCHASED GAS  
ADJUSTMENT AND GAS PURCHASING POLICIES  
OF PIEDMONT NATURAL GAS COMPANY, INC.**

**DIRECT TESTIMONY AND EXHIBITS OF**

**ZACHARY J. PAYNE**

**ON BEHALF OF**

**THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF**

**DOCKET NO. 2018-4-G**

**IN RE: ANNUAL REVIEW OF PURCHASED GAS ADJUSTMENT AND GAS  
PURCHASING POLICIES OF PIEDMONT NATURAL GAS COMPANY,  
INC.**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.**

**A.** My name is Zachary J. Payne. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina, 29201. I am employed by the South Carolina Office of Regulatory Staff ("ORS") in the Audit Department as a Senior Auditor.

**Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

**A.** I received a Bachelor of Science Degree in Business Administration with a double major in Accounting and Economics from the University of South Carolina in May 2013. I began employment with ORS in March 2015 and since have worked on cases dealing with the regulation of nuclear waste, natural gas, water and wastewater companies.

**Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA ("COMMISSION")?**

**A.** Yes.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

1     **A.**           The purpose of my testimony is to set forth findings resulting from ORS's  
2                   examination of Piedmont Natural Gas Company, Inc.'s ("Company" or "Piedmont")  
3                   purchased gas deferred account, inventory calculations, and hedging program deferred  
4                   account, for the period April 2017 through March 2018 ("review period").

5     **Q.     IN CONNECTION WITH YOUR TESTIMONY, DID YOU PREPARE OR CAUSE**  
6                   **TO BE PREPARED ANY EXHIBITS?**

7     **A.**           Yes, the Audit Department prepared Audit Exhibit ZJP-1, titled " Purchased Gas  
8                   Deferred Account Analysis Summary," Audit Exhibit ZJP-2, titled "Storage Inventory  
9                   Activity," and Audit Exhibit ZJP-3, titled "Hedging Program Deferred Account," in  
10                  connection with this testimony. These exhibits were prepared by me or under my direction  
11                  and supervision.

12    **Q.     UNDER WHAT AUTHORITY DOES ORS MONITOR THE ACTIVITY IN**  
13                  **PIEDMONT'S PURCHASED GAS DEFERRED ACCOUNT?**

14    **A.**           In Order No. 88-294, the Commission found that:

15           (1)     A true-up for differences between billed and filed rates is appropriate and necessary  
16                  to ensure that Piedmont's customers pay no more than Piedmont's actual cost of  
17                  gas.

18           (2)     A true-up of demand charges for changes in sales volumes is appropriate and  
19                  necessary to ensure that Piedmont's customers pay no more than Piedmont's actual  
20                  cost of gas.

21           (3)     The Company is to maintain an account reflecting its gas costs each month, the  
22                  amount of gas costs recovered each month, and amounts deferred from month to

1 month. The Company is also required to file, with the Commission, a report on a  
2 monthly basis showing the status of this purchased gas deferred account.

3 Additionally, with the issuance of Commission Order No. 2002-223 dated March  
4 26, 2002, the Company is required to file regular reports on the status of the hedging  
5 program and the results of its hedging activities.

6 **Q. HAS ORS EXAMINED THE COMPANY'S PURCHASED GAS DEFERRED**  
7 **ACCOUNT?**

8 **A.** Yes. ORS has examined the activities included in the purchased gas deferred  
9 account. In addition, ORS has examined the Company's gas storage inventory accounts  
10 and hedging program deferred account, for the review period.

11 **Q. WHAT IS INCLUDED IN AUDIT EXHIBIT ZJP-1, PURCHASED GAS**  
12 **DEFERRED ACCOUNT ANALYSIS SUMMARY?**

13 **A.** Audit Exhibit ZJP-1 presents, for each month of the review period under  
14 examination, the components which comprise the Company's (over)/under collection in  
15 the purchased gas deferred account. These components are:

16 **Commodity True-Up** – These amounts represent the difference in the Company's actual  
17 gas costs on a monthly basis as compared to the benchmark cost of gas included in the  
18 Company's Gas Cost Recovery Mechanism ("GCRM") filings during the review period.  
19 The Company's benchmark cost of gas at the beginning of the review period was \$3.00 per  
20 dekatherm, established as a result of the Company filing GCRM #143, effective the first  
21 billing cycle in April 2017. The Company's benchmark cost of gas at the end of the review  
22 period was \$2.75 per dekatherm, established as a result of the Company filing GCRM #145,  
23 effective the first billing cycle in February 2018. In accordance with Commission Order

No. 2010-250 dated March 30, 2010, the Company includes unbilled volumes in its commodity true-up calculations in order to achieve a better matching of gas cost collections versus actual gas costs in the months they occur. South Carolina's portion of commodity true-up for the review period increased the over-collection by \$4,487,688.

**Demand True-Up** – These amounts represent the (over)/under collection of demand charges incurred by the Company as compared to demand charges billed and collected from customers. In accordance with Commission Order No. 2010-250, the Company includes unbilled volumes in its demand true-up calculations in order to achieve a better matching of gas cost collections versus actual gas costs in the months they occur. The design day factor for allocation of demand charges to South Carolina is 14.92%, effective January 1, 2014, due to North Carolina Utilities Commission ("NCUC") Docket No. G-9 Sub 631, Order dated December 17, 2013. The methodology used to calculate the design day factor for demand allocation of 14.92% is in compliance with Commission Order No. 2004-501, dated October 15, 2004. Demand true-up for the review period increased the over-collection by \$361,769.

**Negotiated Losses** – In competition with alternate fuels, the Company's GCRM allows it to maintain its industrial load by selling gas at less than the approved tariff, resulting in margin losses. During the review period there were no negotiated losses, so there was no effect on the Company's (over)/under-collection.

**Secondary Market Sharing** – Effective with rates approved in Commission Order No. 2002-761 dated November 1, 2002, the Company credited 75% of the margin from off-system sales and capacity release transactions to the purchased gas deferred account. The remaining 25% was retained by the Company. Additionally, the Order provided that

1 capacity release credits and off-system sales would be allocated to South Carolina using  
2 the same design day methodology approved for fixed demand costs.

3 In accordance with NCUC's Order in Docket No. G-9 Sub 682, dated September 29, 2016,  
4 Approving Merger Subject to Regulatory Conditions and Code of Conduct regarding the  
5 merger of Piedmont and Duke Energy, 100% of margins received by Piedmont from  
6 secondary market sales to Duke Energy Carolinas, LLC and Duke Energy Progress, LLC  
7 are now credited to the purchased gas deferred gas accounts for the benefit of the  
8 ratepayers.

9 Shared margins and capacity release credits for the review period increased the over-  
10 collection by \$5,767,900. It should be noted that in compliance with Commission Order  
11 No. 95-1461 dated August 22, 1995, the Company is properly reporting capacity release  
12 activity. These capacity release credits totaling \$3,529,253 are included in the total of  
13 \$5,767,900 listed above for secondary market sharing.

14 **Weather Normalization** – In compliance with Commission Order No. 95-1649 dated  
15 November 7, 1995, the Company began recording in the purchased gas deferred account  
16 weather normalization effective for the winter heating season of November through March.  
17 The weather normalization adjustment is designed to increase or decrease the margin  
18 component of the rate based on a comparison of actual weather conditions during the  
19 period, to normal weather conditions. Weather normalization adjustments for the review  
20 period decreased the over-collection by \$869,126 as a result of warmer than normal  
21 weather for the 2017-2018 heating season.

22 **Uncollectibles** – In Order No. 2006-527 dated October 11, 2006, the Commission  
23 approved the Company's request to remove uncollectible gas cost expense from its cost of

1 service and authorized the recovery of these costs through the Company's purchased gas  
2 deferred account. Under this revised methodology, the commodity cost of gas portion of  
3 uncollectible accounts is now a component of the purchased gas deferred account. The  
4 balance of the uncollectible accounts expensed, including the Company's margin, will be  
5 recovered through its annual Rate Stabilization Act filing. The uncollectible gas cost  
6 adjustment decreased the over-collection during the review period by \$180,784.

7 **Supplier Refunds** – The Company received supplier refunds totaling \$295,576 during the  
8 review period. South Carolina's allocation of these refunds increased the over-collection  
9 by \$42,275.

10 **Hedging Activity Transfer** – In Order No. 2006-527, the Commission authorized the  
11 Company to transfer the balance of its cumulative hedging gains or losses to the purchased  
12 gas deferred account on a monthly basis, effective November 1, 2006. Transfer of the  
13 monthly hedging gains and losses to the purchased gas deferred account for the review  
14 period decreased the over-collection by \$941,030.

15 **Interest** – In Order No. 2009-579, the Commission ordered that, effective September 1,  
16 2009, the interest rate to calculate (over)/under collection balances to be the rate of interest  
17 as of the first day of each month for 10-year United States Government Treasury Bills, plus  
18 an all-in spread of 65 basis points (.65 percentage points). It also ordered that interest not  
19 be accrued on (over)/under collection balances which exceed \$20 million in the purchased  
20 gas deferred account. Total accrued interest for the review period decreased the over-  
21 collection by \$210,099.

22 **Q. WHAT IS INCLUDED IN AUDIT EXHIBIT ZJP-2, STORAGE INVENTORY**  
23 **ACTIVITY?**

1     **A.**             During our examination, the Company provided ORS with detailed inventory  
2                     calculations of its underground and liquefied natural gas (“LNG”) storage facilities. ORS  
3                     accumulated the various inventory levels by storage location in total, and included a  
4                     summary of them in Audit Exhibit ZJP-2, for Commission consideration.

5                     The Company has contracted with six (6) underground storage facilities. Four (4)  
6                     of these facilities are on the Transco System. They include General Storage Service and  
7                     General Storage Service–Dominion located in Pennsylvania, Washington Storage Service  
8                     located in Louisiana, and Eminence Storage Service located in Mississippi. The fifth and  
9                     sixth underground storage facilities are on the Columbia Gas Transmission System. The  
10                    fifth is Firm Storage Services, which is owned by Columbia Gas Transmission Corporation  
11                    and operated by Columbia Gas Storage, with facilities in Pennsylvania, Virginia, and West  
12                    Virginia. The sixth is Hardy Storage Company, located in West Virginia, which is jointly  
13                    owned by Columbia Gas Transmission Corporation and Piedmont. Audit Exhibit ZJP-2,  
14                    “Total Underground” section, details the inventory activities of these underground  
15                    facilities in total. The inventory located in the six (6) underground facilities at the  
16                    beginning of the review period totaled 5,313,012 dekatherms at a total cost of \$15,666,755  
17                    for a weighted average cost of \$2.9488 per dekatherm. The net inventory decreased in  
18                    volume and increased in dollar value during the review period resulting in an ending  
19                    inventory balance in the underground facilities of 5,305,810 dekatherms at a total cost of  
20                    \$16,280,204 for a weighted average cost per dekatherm of \$3.0684. During its  
21                    examination, ORS obtained verification from the storage facility operators of the volumes  
22                    stored in each of these facilities at the close of the review period.



Audit Exhibit ZJP-2 also contains a section titled "Total LNG" which is a summary of the various LNG inventories maintained by the Company, including Pine Needle. Pine Needle is a LNG facility located in Guilford County, North Carolina and is jointly owned by Piedmont, Transco and several other utilities and/or investors. Inventory is also stored at the Company's LNG facilities located at LNG-Huntersville near Charlotte, North Carolina and at LNG-Bentonville in Four Oaks, North Carolina. Piedmont also has inventory at the Transco LNG facility located in Carlstadt, New Jersey. Piedmont's records indicated LNG inventory located at these facilities at the beginning of the review period totaled 2,051,537 dekatherms at a total cost of \$7,298,404 for a weighted average cost of \$3.5575 per dekatherm. The net inventory increased during the review period resulting in an ending LNG inventory balance for these four facilities of 2,366,025 dekatherms at a total cost of \$8,061,817 for a weighted average cost per dekatherm of \$3.4073. During its examination, ORS verified the calculation of ending inventory balances and the injections and withdrawals to the daily storage activity worksheets for each facility.

**Q. WHAT IS INCLUDED ON AUDIT EXHIBIT ZJP-3, HEDGING PROGRAM DEFERRED ACCOUNT?**

**A.** Audit Exhibit ZJP-3 details the results of the Company's hedging program for the review period. Commission Order No. 2002-223 approved the Company's experimental natural gas hedging program.

In Order No. 2006-527, effective November 1, 2006, the Commission authorized the Company to transfer the balance of its cumulative hedging gains or losses to the purchased gas deferred account on a monthly basis. Monthly net hedging gains or losses before interest were transferred to the purchased gas deferred account and included as part

1 of the interest calculation. Total hedging activity for the review period resulted in a  
2 decrease in the over-collection in the purchased gas deferred account of \$941,030.

3 As indicated on Audit Exhibit ZJP-3, the cumulative loss at the end of the review  
4 period for the hedging program is \$41,308,897.

5 **Q. WHAT ARE ORS'S FINDINGS REGARDING PIEDMONT'S PURCHASED GAS**  
6 **DEFERRED ACCOUNT?**

7 **A.** Based on our examination, it is the opinion of ORS that the over collection balance  
8 in the purchased gas deferred account at March 31, 2018 of \$298,268, shown on Company  
9 witness Tomlinson's Exhibit\_(MBT-1), is accurately stated.

10 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

11 **A.** Yes, it does.

**PIEDMONT NATURAL GAS COMPANY, INC.**  
**DOCKET NO. 2018-4-G**  
**PURCHASED GAS DEFERRED ACCOUNT ANALYSIS SUMMARY**  
**FOR TWELVE MONTHS ENDED MARCH 31, 2018**

Month	April	May	June	July	August	September	October	November	December	January	February	March	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Beginning Balance	8,159,422	8,183,623	8,781,956	9,608,783	9,648,668	10,331,907	10,910,971	11,371,343	9,726,077	5,741,501	(1,391,688)	(997,431)	
Commodity True-Up	(598,202)	(119,506)	(162,748)	(777,181)	(293,503)	(314,002)	(235,044)	(1,090,432)	(1,309,210)	(1,087,215)	1,357,534	161,821	(4,487,688)
Demand True-Up	726,001	901,757	1,017,876	880,957	1,066,365	1,024,997	782,589	(354,631)	(1,539,100)	(3,190,788)	(830,616)	(847,176)	(361,769)
Negotiated Issues	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Sharing	(166,312)	(219,132)	(235,107)	(249,351)	(262,410)	(262,676)	(218,662)	(467,300)	(1,642,307)	(937,199)	(495,774)	(611,670)	(5,767,900)
Weather Normalization	796	482	107	284	127	111	761	246,335	310,269	(1,919,592)	346,187	1,883,239	869,126
Uncollectibles	23,534	25,944	31,079	32,476	35,343	15,924	9,620	(6,930)	(1,800)	(5,244)	4,096	16,742	180,784
Supplier Refunds	(799)	(24,346)	(766)	0	0	0	0	0	(234)	0	(16,126)	(4)	(42,275)
Hedging Activity Transfer	19,242	13,025	153,824	129,122	114,266	88,384	113,068	746	178,116	746	32,455	98,036	941,030
Other Adjustments	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Balance Before Interest	8,163,682	8,761,847	9,586,221	9,625,090	10,308,856	10,884,645	11,343,303	9,699,151	5,721,811	(1,397,791)	(993,932)	(296,443)	
Interest	19,941	20,109	22,562	23,578	23,051	26,326	28,040	26,926	19,690	6,103	(3,499)	(1,828)	210,999
Ending Balance	8,183,623	8,781,956	9,608,783	9,648,668	10,331,907	10,910,971	11,371,343	9,726,077	5,741,501	(1,391,688)	(997,431)	(298,271)	
Interest Rate	2.932%	2.848%	2.948%	2.942%	2.772%	2.978%	3.024%	3.067%	3.059%	3.372%	3.520%	3.391%	

Purchased Gas Deferred Account (Over)/Under-Collection as of 3/31/18

(\$298,271) (1)

(1) - Variance from Exhibit (MBT-1) of \$2.5% due to rounding

**PIEDMONT NATURAL GAS COMPANY, INC.**  
**DOCKET NO. 2018-4-G**  
**STORAGE INVENTORY ACTIVITY**  
**FOR TWELVE MONTHS ENDED MARCH 31, 2018**

	Total Underground Injections				Total Underground Withdrawals				Total Underground Balance			
	Gross DTs #	Used/Injected #	Price \$	Commodity \$	Injection/Charge \$	W/D Charge \$	DTs #	Price \$	Amount \$	DTs #	Amount \$	Wtd. Cost \$
Beg. Bal.												
Apr-17	731,283	(19,395)	2.9065	2,125,446	36,884	0	(288,424)	2.8685	(827,347)	5,313,012	15,666,755	2.9488
May-17	2,068,901	(42,637)	2.9310	6,063,961	90,964	0	(73,415)	2.8259	(207,463)	5,736,476	17,001,738	2.9638
Jun-17	3,531,867	(99,550)	2.9672	10,479,763	126,510	0	(13,491)	2.9412	(39,680)	7,689,325	22,949,200	2.9846
Jul-17	2,250,494	(49,968)	2.8396	6,390,613	87,139	0	(74,232)	2.9469	(218,757)	11,108,151	33,515,793	3.0172
Aug-17	1,769,403	(38,507)	2.7387	4,845,839	62,168	0	(67,139)	2.9213	(196,131)	13,234,445	39,774,788	3.0054
Sep-17	1,810,164	(40,083)	2.7182	4,920,382	70,847	0	(50,059)	2.9354	(146,945)	14,898,202	44,486,664	2.9860
Oct-17	1,356,807	(34,451)	2.6909	3,651,024	60,847	0	(236,917)	2.9053	(688,325)	16,618,224	49,330,948	2.9685
Nov-17	474,036	(10,952)	2.7585	1,307,614	22,204	0	(1,274,237)	2.8907	(3,683,472)	17,703,663	52,354,494	2.9573
Dec-17	815,735	(16,878)	2.8116	2,293,495	38,581	0	(2,956,093)	2.9212	(8,635,449)	16,892,510	50,000,840	2.9599
Jan-18	500,652	(6,919)	2.9795	1,491,682	17,745	0	(4,736,187)	2.9093	(13,779,021)	14,735,274	43,697,467	2.9655
Feb-18	234,065	(4,903)	3.0603	716,298	11,426	0	(2,325,506)	2.9087	(6,764,288)	10,492,820	31,427,873	2.9952
Mar-18	266,474	(5,240)	2.5723	685,439	12,883	0	(3,351,900)	2.9265	(9,809,427)	8,396,476	25,391,309	3.0240
	15,809,881	(369,483)	2.8445	44,971,556	638,198	0	(15,447,600)	2.9128	(44,996,305)	5,305,810	16,280,204	3.0684

	Total LNG Injections				Total LNG Withdrawals				Adjustments To Tank Level				Total LNG Balance	
	Gross DTs #	Used/Injected #	Price \$	Commodity \$	Injection/Charge \$	W/D Chg/Exp/Def \$	DTs #	Price \$	Amount \$	DTs #	Amount \$	DTs #	Amount \$	Wtd. Cost \$
Beg. Bal.														
Apr-17	83,637	(4,617)	2.8994	242,493	503	33,437	(32,868)	3.8944	(128,001)	0	0	2,051,537	7,298,404	3.5575
May-17	66,572	(722)	2.8787	191,643	320	30,717	(33,994)	3.9162	(133,126)	0	0	2,097,689	7,446,836	3.5500
Jun-17	603,877	(5,487)	2.7685	1,671,813	4,693	121,908	(66,756)	3.7997	(253,654)	0	0	2,129,545	7,536,390	3.5390
Jul-17	767,964	(5,389)	2.7230	2,091,182	4,528	226,670	(99,095)	3.6884	(365,502)	0	0	2,661,179	9,081,150	3.4125
Aug-17	777,567	(8,155)	2.6506	2,060,990	8,501	232,870	(147,521)	3.6231	(534,485)	0	0	3,324,659	11,038,028	3.3200
Sep-17	390,975	(6,336)	2.6518	1,036,794	6,308	164,933	(103,850)	3.6828	(382,461)	0	0	3,946,550	12,805,904	3.2448
Oct-17	295,172	(4,568)	2.6402	779,311	4,026	30,421	(103,530)	3.1927	(330,544)	0	0	4,227,339	13,631,478	3.2246
Nov-17	128,507	(524)	2.7729	356,334	534	105,081	(143,466)	3.1439	(451,039)	0	0	4,414,413	14,114,692	3.1974
Dec-17	93,709	(1,642)	2.8156	263,843	1,545	34,086	(737,831)	2.9139	(2,149,953)	0	0	4,398,930	14,125,602	3.2111
Jan-18	309,377	(6,467)	3.1034	960,120	6,892	43,431	(1,403,703)	3.1713	(4,451,514)	0	0	3,840,628	12,598,345	3.2803
Feb-18	174,805	(3,595)	2.9555	516,632	3,793	38,990	(117,969)	3.0958	(365,211)	0	0	2,739,835	9,157,274	3.3423
Mar-18	66,845	(995)	2.5391	169,728	801	41,776	(492,901)	3.0472	(1,501,966)	0	0	2,793,076	9,351,478	3.3481
	3,759,007	(48,497)	2.7510	10,340,883	42,444	1,104,320	(3,483,484)	3.1714	(11,047,456)	87,462	323,222	2,366,025	8,061,817	3.4073

PIEDMONT NATURAL GAS COMPANY, INC.  
 DOCKET NO. 2018-4-G  
 HEDGING PROGRAM DEFERRED ACCOUNT  
 (GAIN)/LOSS RECOGNIZED AND OTHER EXPENSES  
 FOR TWELVE MONTHS ENDED MARCH 31, 2018

Month	(Gain) or Loss \$	Trading Fees \$	(Gain) or Loss Recognized \$	Interest \$	RMI Fee \$	Real-Time Pricing Fee \$	Net (Gain) or Loss \$	Cumulative (Gain) or Loss \$
Beginning Balance								40,367,867
Apr-17	18,240	248	18,488	0	746	8	19,242	40,387,109
May-17	12,100	171	12,271	0	746	8	13,025	40,400,134
Jun-17	151,600	2,216	153,816	0	0	8	153,824	40,553,958
Jul-17	126,740	1,628	128,368	0	746	8	129,122	40,683,080
Aug-17	112,240	1,271	113,511	0	746	9	114,266	40,797,346
Sep-17	86,560	1,070	87,630	0	746	8	88,384	40,885,730
Oct-17	110,850	1,472	112,322	0	746	0	113,068	40,998,798
Nov-17	0	0	0	0	746	0	746	40,999,544
Dec-17	174,890	2,480	177,370	0	746	0	178,116	41,177,660
Jan-18	0	0	0	0	746	0	746	41,178,406
Feb-18	30,560	403	30,963	0	1,492	0	32,455	41,210,861
Mar-18	95,880	1,410	97,290	0	746	0	98,036	41,308,897
	19,660	3,691	32,029	0	8,952	49	941,030	